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# **Research Paper**

# Accounting Technology and Financial Reporting Process of Medium-Sized Enterprises in Calamba Laguna, Philippines

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## **ABSTRACT**

Despite potential benefits of accounting technology in the financial reporting process, the adaptation of medium-sized enterprises remains limited due to several barriers such as lack of technical expertise, the high cost of implementation, and concerns about data security and privacy. The objective of the study was to determine how accounting technology, particularly cloud-based accounting technology, spreadsheets, and payroll software, impacted the characteristics of the financial reporting process, including real-time reporting, uniform system, and financial report accuracy.

The descriptive-correlational approach was used to analyze the impact of accounting technology on the financial reporting process of medium-sized enterprises in Calamba, Laguna. The researchers selected 85 medium-sized enterprises from the total population of 146 which was calculated using the Slovin's formula with a 7% margin of error through a simple random sampling ensuring representative and unbiased samples.

The results revealed that the characteristics of financial reporting process in terms of accuracy of financial reports, real time reporting, and uniform system has significantly affected by the respondents' awareness and utilization of accounting technology in terms of cloud-based, spreadsheets, and payroll software with a p-value of 0.00, less than the critical two-tail value of 0.01, therefore the null hypothesis stating that there was no significant relationship between accounting technology and the financial reporting process of medium-sized enterprises in Calamba, Laguna was rejected.

These results opened the path for better internal controls, better financial reporting procedures, and a context that remains more knowledgeable and adaptable for businesses as well as the public as a whole.

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## I. INTRODUCTION

Accounting, one of the most ancient professions, has evolved alongside civilizations, leaving its mark on history as it adapted to technological advancements and societal changes, as posited by Asuquo (2020). The evolution from manual ledger reconciliations, as highlighted by Rubino (2021), to contemporary digital solutions underscores the transformative mastery of technology in the realm of accounting. Indeed, as Koleva (2020) clarifies, technology has changed the way accounting is done by introducing automation, improving the quality and efficiency of financial reporting processes.

Financial reporting, crucial for corporate transparency and decision-making, provides insights into an entity's financial health, complies with regulations, and guides strategic planning, as discussed by Bensoussan (2022). However, its quality depends on effective evaluation procedures, as emphasized by **Herath (2017)** and Sahi et al. (2022), highlighting the need for inquiry. Technology plays a vital role in enhancing accuracy, efficiency, and timeliness in financial reporting, particularly through cloud-based solutions, spreadsheets, and payroll software, enabling real-time reporting and uniform systems. Yet, the adoption of accounting technology, especially among Micro, Small, and Medium-sized Enterprises (MSMEs), faces challenges such as resource constraints and technological barriers, as outlined by Bakarich and O'Brien (2021), **Karanja, and Muriithi (2020)**.

This study aimed to investigate the impact of accounting technology on financial reporting processes among medium-sized enterprises, focusing on cloud-based solutions, spreadsheets, and payroll software. Through empirical analysis and critical discourse, it sought to understand the relationship between technology adoption and key attributes of financial reporting. The study also sought to understand how technology changed

financial reporting for Medium-sized enterprises. We looked at the variables like cloud software and spreadsheets to see how they affected financial reporting. This sets the stage for a detailed look into this study entitled "Accounting Technology and Financial Reporting Process of Medium-sized Enterprises in Calamba Laguna" focusing on careful methods, real-life research, detailed analysis, and strong discussions. The goal was to add useful information about what we knew and help enterprises with practical advice.

#### THEORETICAL BACKGROUND

The structural model utilized in this study is the Two Theory of Technology Acceptance Model by Marikyan and Papagiannidis (2022). Determined by two factors: (a)perceived usefulness and (b)perceived ease of use. Based on the study of Utami& Aziz (2019), the primary objective of using information systems and accounting technology in medium-sized enterprises is to place greater emphasis on reducing the number of errors in processing transactions that have been carried out manually and providing accurate and timely financial reports that can be used by management to make business performance decisions. Figure 1 illustrates these through IV-DV model (independent variable-dependent variable) as follows: 1) Accounting Technology; a) Cloud-based Accounting Technology; b) Spreadsheets; c) Payroll software; which were the basis for measuring the awareness in and utilization of accounting technology of medium-sized enterprises. 2) Financial Reporting Process; a) Accuracy of Financial Reports; b) Real Time Reporting; c) Uniform System were included as the sub-dependent variables as indicators for the attainment of the characteristics financial reporting process of medium-sized enterprises in Calamba, Laguna.

As stated in Wiralestari, et al. (2022), accounting software is useful mostly to MSMEs that do not have accountants or cannot employ accountants. The reason for the need to use accounting technology is that in addition to recording and calculating, it also provides convenience in performing work and minimizes the risk of errors in recording and calculating.(Rahmatullah et al., 2020) is also used as a framework. In comparison to a manual system, digital applications are superior in effectiveness and efficiency for managing a business. As studied by **Gupta** (2020),accounting software helps MSMEs to make their accounting and other business processes easier, time-saving, precise, and cost-effective.

## RESEARCH QUESTION OR RESEARCH HYPOTHESIS OR PROBLEM STATEMENT

It discussed specifically to identify the significant effect of accounting technology on the financial reporting process among medium-sized enterprises in Calamba, Laguna. Similarly, it measured the level of Awareness and Utilization of medium-sized enterprises in terms of: Cloud-based accounting technology, Spreadsheets, and Payroll Software. Also, it assesses the level of attainment on accounting technology in terms of the following characteristics: a) Accuracy of financial reports, b) Real time reporting, and c) Uniform system. Furthermore, the study analyzes if there is no significant relationship between accounting technology and the financial reporting process of selected medium-sized enterprises in Calamba, Laguna.

## II. DATA AND METHODS

Descriptive-correlational approach research design was utilized in this study to gather relevant data about the impact of accounting technology to the financial reporting process of medium-sized enterprises in Calamba, Laguna. The data gathered by using a research instrument, which is, modified adapted survey questionnaires. In addition, the researchers tabulated and analyzed the data gathered as well as used different statistical treatments such as Weighted mean, standard deviation and Pearson r, to summarize the results and determine the variable's significant relationship. With a total population of 146 medium enterprises, eighty five (85) respondents from different barangays of Calamba, Laguna were chosen randomly to accomplish the questionnaires.

III. RESULTS

 Table 1. Summary of the Mean Results

	Weighted Mean	Verbal Interpretation
Cloud-Based Accounting Software	3.07	Aware
Spreadsheets	3.47	Fully Aware
Payroll Software	3.42	Fully Aware

In terms of awareness of medium-sized enterprises in cloud-based accounting technology is claimed that they are Aware that it is a type of software that allows users to access and manage their accounting data online, as shown by the mean score of 3.16 and standard deviation of 0.95. Respondents are also Aware that

they have clear and understandable interactions with cloud accounting system which was determined by a mean of 2.95 and standard deviation of 1.05.

This is justified by Ehioghiren and Ojeaga (2022), which claimed that more professional accountants become aware of and embrace cloud technologies, accounting processes are poised to become significantly quicker and more efficient. This transition will grant professionals access to real-time data, ultimately resulting in heightened transparency, accountability, and precision in financial reporting through cloud platforms and foster improved collaboration and communication among business professionals. Nevertheless, it is worth noting that security and reliability will continue to rank among the top concerns for management as they navigate the adoption of cloud technologies.

While in terms of awareness in spreadsheets the respondents claimed they are Fully Aware that it is a software tool primarily used for analyzing and calculating account balances from business operations which determined by the mean score 3.61 and standard deviation of 0.74. Moreover, respondents are Fully Aware that they possess above average knowledge of the application of spreadsheets to prepare financial reports with a mean score of 3.28 and standard deviation of 0.83.

This is supported by Beyenne (2022) who mentioned that spreadsheet is one of the most used computers approaches in today's modern economy. The usefulness and usability of the spreadsheet application have allowed non-programmers to carry out programming-like tasks in a comfortable environment that is modeled after the tabular "pen and paper" technique. As additional justification of Birch et al. (2018) spreadsheets frequently serve as a lightweight database in addition to having the ability to store data in a computable format. Which especially true for users who lack access to or experience with more advanced database systems.

Lastly, for respondents' awareness in terms of payroll software which is claimed that they are also Fully Aware of this software enables to automates employee pay and maintains human resource records like time and attendance which is determined by the mean score 3.51 and standard deviation of 0.73. Furthermore, the respondents also claimed that they have enough knowledge on payroll software that makes calculations and payments for the staff faster and more accurate which is determined by mean score of 3.29 and standard deviation of 0.84.

This is supported by Ruslyet. al (2019) who mentioned that human resource management systems frequently include payroll processing because it is essential for an organization. Regardless of size or choice of an organization, they should be aware and implement this accounting technology in order to ensure success, maximize company performance, and avoid challenges.

Table 2. Summary of the Mean Results

	Weighted Mean	Verbal Interpretation
Cloud-Based Accounting Software	2.97	Sometimes Utilized
Spreadsheets	3.32	Always Utilized
Payroll Software	3.33	Always Utilized

The table shows the level of utilization of the respondents in terms of cloud-based accounting, spreadsheets, and payroll software. In terms of cloud-based accounting software, respondents claimed that they sometimes utilized as much as possible in job performance as it provides an ease-of-use, as intent on the mean score of 3.02 and a standard deviation of 1.21. Moreover, it was also mentioned that the respondents use cloud accounting systems to organize business transactions throughout the entire company, as supported by the mean score of 2.89 and a standard deviation of 1.21.

These data is supported by Le and Cao (2020), who mentioned that there are enterprises that start the initial phases of implementing cloud computing for their accounting purposes like the Vietnamese businesses. The factors that exert an influence on an individual's intentions to utilize cloud-based accounting software are identified. Furthermore, it was found that perceived convenience played a positive role in shaping both the perceived usefulness and perceived ease of use, and that an individual's perception of the software's ease of use affects the perception of its usefulness in order to have valuable insights on the strategic business decision making and processes.

On the contrary, the extent of respondents' utilization in terms of spreadsheets, with a mean score of 3.38 and a standard deviation of 0.89, implied that the respondents always utilized the spreadsheets. This suggests that companies use spreadsheets as it offers formula tools that can help with accounting needs as well as in calculating tax. Additionally, it was also stated that the respondents use spreadsheets in calculating, tabulating, storing, and comparing data for current and future reference, as evidenced by a mean of 3.25 and a standard deviation of 0.86.

According to Sani et al (2019), one of the tools that SMEs must utilize in order to perform financial and stock calculations is a spreadsheet program. Along with the expansion of the application's use, the level of usage is increasing. Usability testing is carried out to ascertain the extent of spreadsheet application so that the Learnability, Efficiency, Memorability, Errors, and Satisfaction levels can be calculated.

In terms of payroll software, respondents believe that there are companies that use payroll software to efficiently lower the cost of payroll operations, as demonstrated by a mean of 3.36 and a standard deviation of 0.99, implied that the respondents always utilized the payroll software. In addition, respondents mentioned using payroll software to optimize the process of the company in computing wages and time-keeping, as justified with a mean rating of 3.31 and a standard deviation of 1.04.

Such results is reinforced by Sandiwarno (2018), claiming that with the help of this payroll software system, it is possible to speed up the processing of payroll data, lessen the issue of human error in calculating employee salaries, produce payroll reports quickly and accurately, accelerate expected payments, and place restrictions on user access rights to prevent unauthorized parties from freely accessing data.

**Table 3.** Summary of the Mean Results

	Weighted Mean	Verbal Interpretation
Accuracy of Financial Reports	3.36	Fully Attained
Real-time reporting	3.42	Fully Attained
Uniform System	3.39	Fully Attained

The table shows the level of attainment of the respondents in terms of accuracy of financial reports, real-time reporting, and uniform system. In terms of the accuracy of financial reports, respondents claimed that they have fully attained the use of accounting technology and it has significantly improved the accuracy of their daily financial transactions as determined by the mean score of 3.48 and a standard deviation of 0.83. Furthermore, it was also agreed that the automated processes in the respondents' accounting technologies have reduced the risk of human error in financial reporting with a mean score of 3.25 and a standard deviation of 0.90.

Such results are justified by Yopie and Cristiano (2022), stating that the usage of accounting technology can enhance a company's value by providing precise and prompt information, improving data quality, decreasing information expenses, increasing the accuracy of decision-making, and facilitating knowledge sharing. Such systems produce valuable financial performance metrics and accurate financial reports. Incorporating accounting technology, can reduce errors and improve the speed and accuracy of the financial reporting process.

On the other hand, the respondents affirmed to have full attainment that the timeliness of financial transactions provided a comprehensive reflection on their decision-making processes, as demonstrated by a mean of 3.48 and a standard deviation of 0.78. In addition, as proved by 3.45 mean and a standard deviation of 0.82, the respondents believed that accounting technologies have increased their productivity and the effectiveness of their daily financial workflow.

These findings are reinforced by Jotform (2023), claiming that due to the fact that the data is regularly updated, companies are able to examine the current status of their performance at any moment by accessing the most recent statistics. Real-time reporting automates the collection of data as much as possible, which helps to reduce the amount of work that must be done annually. This enabled the users to study information without having to perform number crunching or devote an entire day or more to the process of collecting and analyzing data.

Lastly, in terms of uniform system, the respondents attested to have attained fully that computerized accounting system enabled them to immediately post transactions, as evidenced by a mean of 3.45 and a standard deviation of 0.76. Moreover, they claimed to have improvements on the transparency, comparability, and accountability of their company's financial transactions, as determined by a mean of 3.33 and a standard deviation of 0.81.

These results are supported by Gardi et al (2021), who mentioned that the consistency of the financial results reduces the uncertainty and ambiguity of information offered to clients, consumers, and other institutional investors interested in this study. It also ensures and enforces the firm's presentation of correct and dependable facts. The quality and dependability of data produced by corporate data systems are crucial not just for accurate financial reporting but also for the expansion and general success of a business. Efficient financial reporting includes having access to reliable information, using it to improve management standards, and preserving the information's quality, validity, and secrecy.

In addition, Wicaksono, A. et al. (2020), the information in a financial report that has been processed using accounting technology has been shown to be more relevant and easier to understand, which helps with financial decision-making. The financial reports also have a low level of materiality because the formulas provided by cloud-based, spreadsheets, and payroll software are standardized, which reduces the likelihood of formula-related miscalculation. The option is to make financial statements processed with these technologies more comparable so that it could aid the company's financial decision-making process. The improvement in the information stated and decreasing level of materiality has an impact on the increasing level of report reliability and accuracy. Thus, it is evident that accounting technology among the medium-sized enterprises in Calamba, Laguna provides accurate, real-time and consistent financial data and has significantly affected their financial reporting process.

## IV. CONCLUSION

In the light of the findings of this study entitled: Accounting Technology and Financial Reporting Process of Medium-Sized Enterprises in Calamba, Laguna, the following conclusions are drawn:

- 1. The researchers had gathered data with a total population of one hundred and forty-six (146) medium enterprises.
- 2. The study evaluated the awareness of medium-sized enterprises in various accounting technologies, including cloud-based accounting, spreadsheets, and payroll software. The respondents rated their level of awareness in cloud-based accounting technology at 3.07 which means that the respondents were 'aware', while their awareness in spreadsheets was at 3.47. The respondents also rated their awareness in payroll software at 3.42, indicating a level of 'fully aware' in these areas.
- 3. The study surveyed medium-sized enterprises about their use of accounting technologies like cloud-based accounting technology, spreadsheets, and payroll software. The respondents used cloud-based technology 'sometimes utilized', with an overall mean of 2.974. However, the researchers found medium-sized enterprises more comfortable with spreadsheets and payroll software, with an overall mean of 3.324 and 3.332, respectively, indicating they were 'always utilized'.
- 4. Medium-sized enterprises evaluated their financial reporting process's accuracy, real-time reporting, and uniform system as fully attained, with overall mean of 3.36, 3.42, and 3.394 respectively. These ratings were significantly influenced by their awareness and utilization of accounting technologies.
- 5. The study rejects the null hypothesis that accounting technology does not significantly impact the financial reporting process of medium-sized enterprises in Calamba, Laguna. The findings suggest that the respondents' awareness and utilization of accounting technology, including cloud-based software, significantly improved accuracy, real-time reporting, and uniform financial reporting systems.

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